



THE UNIVERSITY OF ARIZONA

**Mel & Enid Zuckerman  
College of Public Health**

**Fall 2025**

**MPH Applied Practice Experience  
Virtual Presentations  
Abstract Booklet**

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### **Office of Student Affairs**

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# Virtual Presentations

We invite MEZCOPH faculty, staff, students, and alumni, as well as our wonderful preceptors and community members to view as many presentations as possible. These presentations highlight the depth and breadth of work that our students do with local, national, and global communities.

This page will be available for asynchronous viewing of student presentations until December 7th.

## **Presentation website:**

<https://publichealth.arizona.edu/fall-2025-virtual-mph-applied-practice-experience-conference>

For each presentation viewed, please complete a brief survey to provide valuable feedback to the presenters. This feedback is anonymous.

## **Presentation Feedback form:**

[https://uarizona.co1.qualtrics.com/jfe/form/SV\\_0NBAG6M3LFFaK7r](https://uarizona.co1.qualtrics.com/jfe/form/SV_0NBAG6M3LFFaK7r)

We appreciate your participation in the  
Fall 2025 Virtual MPH Applied Practice Experience Conference!

# Presenters

Name	Concentration	Student Email	Abstract Page Number
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## \*Concentrations Designations

AE – Applied Epidemiology

CCH – Climate Change and Health

CL – Clinical Leadership (MD/MPH)

EPI – Epidemiology

FCH – Family and Child Health

GH – Global Health

HBHP – Health Behavior Health Promotion

HSA – Health Services Administration

OH – One Health

PHPM – Public Health Policy & Management

PHP – Public Health Practice

# **MPH Applied Epidemiology**

## **ABSTRACTS**

Title:

Geographic Distribution of Optic Nerve Hypoplasia in California

Author:

Garrett Grischo

MPH Committee Chair or Master's Report Advisor:

Halimatou Alaofè, PhD, MSc

Site:

University of Arizona College of Medicine Phoenix

Preceptor:

Pamela Garcia-Filion, PhD

Abstract:

**Introduction:** Optic nerve hypoplasia (ONH) is a congenital condition marked by underdevelopment of the optic nerve and is a major cause of childhood visual impairment. Although ONH is increasingly recognized, its geographic and sociodemographic patterns remain unclear. This study evaluates the spatial distribution of ONH across California and assesses related socioeconomic factors.

**Methods:** First-trimester residential ZIP codes from mothers of ONH cases were analyzed in ArcGIS Pro. A total of 350 ZIP codes were geocoded and assigned to Northern, Central, Bay Area, Southern, and Los Angeles County regions. Global spatial statistics assessed clustering of ONH and prevalence patterns. When clustering was identified, local spatial tools were used to pinpoint specific clusters.

**Sociodemographic characteristics** were compared between clustered and randomly distributed ONH cases using two-sample t-tests. Pearson correlations examined associations between prevalence and sociodemographic indicators. **Results:** Spatial clustering occurred in Central, Bay Area, Southern, and Los Angeles County regions. Southern and LA regions showed high-prevalence clustering, with local analyses identifying multiple cluster areas in LA. ZIP codes with high-prevalence clusters had lower rates of low educational attainment and lower unemployment compared to random cases, while high-prevalence outliers showed lower median income and higher unemployment. Weak negative correlations were observed between prevalence, low educational attainment, and unemployment, and a weak positive correlation was noted with income. **Conclusion:** ONH cases cluster geographically in Southern and Los Angeles County and show links to socioeconomic disadvantage. These findings highlight potential social or environmental risk factors that merit further epidemiologic study.

Title:

Raising HIV and Syphilis Awareness among Women of Child-Bearing Age in the U.S.–Mexico Border Region

Author:

Lazaro Ruiz

MPH Committee Chair or Master's Report Advisor:

Halimatou Alaofè, PhD, MSc

Site:

Universidad Autónoma de Tamaulipas

Preceptor:

Sheila Soto, MPH, DrPH

Abstract:

**Introduction:** During my internship with the University of Tamaulipas, I assisted in raising awareness about HIV and syphilis among women of childbearing age, community health workers, and healthcare professionals in areas along the US-Mexico border. The goal of this internship was to enhance education, promote early detection, and improve access to care for women in this demographic.

**Methods:** To achieve the internship objectives, I conducted a literature review and analyzed de-identified data on syphilis and HIV trends in border communities. Collaborating with researchers and clinicians, we identified key behavioral, social, and structural risk factors, focusing on stigma, religious influences, and educational disparities. This information guided the creation of culturally appropriate outreach and interventions. **Results:** Using the data and literature review, I assisted in creating recruitment strategies by developing educational advertisements aimed at women and frontline providers. Additionally, we created a survey tool to assess how religion, stigma, and level of education influence awareness and understanding of HIV and syphilis. These deliverables were designed to help identify gaps in care and barriers to prevention, diagnosis, and treatment. Using the data collected from the surveys will help complete the design of future interventions.

**Conclusion:** This internship emphasized the importance of culturally tailored community-informed research in addressing HIV and syphilis in the border region. Findings show the need for expanded educational efforts and improved provider training. For future interventions or research, incorporating these strategies into regional initiatives will strengthen prevention and care pathways for women and their providers.



Title:

Advancing Maternal Mental Health Equity: Developing Population Profiles for Asian American and Pacific Islander Communities

Author:

Shamyah Stone

MPH Committee Chair or Master's Report Advisor:

Halimatou Alaofè, PhD, MSc

Site:

Maternal Mental Health Leadership Alliance

Preceptor:

Mara Child, MPH, MPA

Abstract:

**Introduction:** The Maternal Mental Health Leadership Alliance (MMHLA) is a nonprofit dedicated to advancing policy that improves perinatal mental health in the U.S. My internship addressed knowledge gaps around Asian American and Pacific Islander (AAPI) communities, who are often underrepresented in research and policy. The goal was to create four population profiles (South Asian, Southeast Asian, East Asian, and Pacific Islander) to better understand maternal mental health experiences and guide policy recommendations. **Methods:** I conducted a literature review using peer-reviewed articles and government data for each group. Information was organized into domains such as historical events, lived experiences, and structural barriers. This research was synthesized into four profiles and refined with feedback from subject matter experts to ensure cultural accuracy and relevance.

**Results:** As a result, 4 population profiles were the main products delivered. These profiles displayed the unique challenges impacting women and birthing people in these populations and have become a tool for MMHLA staff in their policy advocacy and communication work to ensure mothers from these populations are well supported. **Conclusion:** I learned how historical, cultural, structural elements impact the mental health of mothers from AAPI communities. The profiles reinforced the importance of disaggregating data and avoiding generalizations among populations. The profiles display the need for policy solutions that are culturally relevant to the unique challenges of these communities. Future efforts need to incorporate community voices and use them to guide maternal health legislative and funding priorities."

Title:

Vaccine Preventable Disease Analysis in the Central Shenandoah Health District

Author:

Rachel Dumene

MPH Committee Chair or Master's Report Advisor:

Halimatou Alaofè, PhD, MSc

Site:

Staunton-Augusta Health Department

Preceptor:

Travis Oishi, MPH

Abstract:

Introduction: Vaccine-preventable diseases (VPDs) continue to pose significant public health challenges, leading to preventable illness and death even in developed nations. Although vaccines are widely available, incomplete coverage and variable vaccine efficacy contribute to ongoing disease transmission. Methods: Data on VPD cases reported between 2012 and 2023 within the Central Shenandoah Health District (CSHD) were analyzed. Case data were obtained from the Virginia Electronic Disease Surveillance System (VEDSS), which compiles information from mandated disease reports, laboratory results, medical facility notifications, and public health investigation interviews. All data were de-identified in accordance with research standards. Microsoft Excel was used for data cleaning and visualization. Results: Of 1,225 individuals entered into VEDSS during the study period, 682 met the case definition for a VPD. Cases were concentrated in more densely populated and urban areas of the district. Children and young adults under age 23 represented the majority of cases. The most frequently reported VPDs included pertussis, varicella, mumps, and invasive *Haemophilus influenzae*. Case rates increased after age four, remained elevated through age 25, and rose again among adults over 65. Notably, pertussis incidence among vaccinated individuals declined following administration of the fifth DTaP dose (ages 4-6). Conclusions: Ongoing monitoring of VPD trends supports timely outbreak detection, informs prevention strategies, and enhances public health messaging about vaccination. These findings underscore the importance of continued surveillance and targeted immunization efforts to reduce the burden of VPDs within the CSHD.

# **MPH Climate Change and Health**

## **ABSTRACTS**

Title:

Water Quality in the Lake Atitlan Watershed: Understanding Health Implications, Community Engagement and Connection to Climate Change

Author:

Kendra K Martinez

MPH Committee Chair or Master's Report Advisor:

Mona Arora, PhD, MSPH

Site:

Sololá, Guatemala

Preceptor:

Yunuen Anna Soto, M.S.

Abstract:

Understanding water quality and its connection with a changing climate is essential for ensuring public health public health preparedness and response for areas such as the Lake Atitlan region of Guatemala. In collaboration with the University of Arizona's Global Health Institute Scholars Program, and the Universidad de Valle de Guatemala-Altiplano Campus Centro de Estudios de Atitlán (CEA), this project assessed water quality in the Lake Atitlán watershed. The intern assisted with primary data collection of a continuing water quality and health study, supported environmental education initiatives and created health communications resources to be used by community partners. Under the supervision of the CEA, the intern participated in water quality monitoring activities, laboratory analysis and student engagement opportunities. The deliverables of the internship experience include: a.) health communications visuals developed as a part of a public-facing communications, b.) Fotonovela ideation and c.) data collection as a part of an ongoing study examining the link between contaminants and child stunting. Future directions for this line of research involve a gradual communications campaign for public-facing communications, continuation of ongoing investigations and incorporation of climate change projections into water quality initiatives within the region.

## **MPH Clinical Leadership**

### **ABSTRACTS**

Title:

Treatment indices among incarcerated and recently incarcerated people with syphilis in Maricopa County, 2016-2022

Author:

Kyle Avery

MPH Committee Chair or Master's Report Advisor:

Doug Campos-Outcalt, MD, MPA

Site:

Maricopa County Public Health STI Clinic

Preceptor:

Melanie M. Taylor MD, MPH, AAHIVM

Abstract:

**Background:** From 2016-2022, Maricopa County, Arizona, saw a 50% average annual rise in syphilis cases diagnosed in corrections and an 18.5% increase in cases reporting incarceration within the past year. **Methods:** Arizona's STD surveillance database (PRISM) was used to describe treatment, demographics, and testing data for syphilis cases reported from 2016-2022. Excluding patients treated before a lab result, time to treatment was calculated as median days from lab result to treatment. **Results:** Of 19,596 total syphilis cases, 13.6% (2,670) were diagnosed in corrections (mean age 33; 61.6% men), and 14.8% (2,909) were diagnosed outside corrections but reported incarceration in the past year (mean age 32; 61.7% men). Among correctional cases, 20.5% (548/2,670) had no reported treatment, compared to 6.3% (86/1,362) of recently incarcerated cases and 7.8% (1,209/15,563) of all others. Median time to treatment was 7 days (range 0-477) in corrections and 8 days (range 0-367) for those recently incarcerated. Of treated correctional cases, 93.2% (1,978/2,122) were treated within the facility and 4.4% (94/2,122) at the public STD clinic. Among recently incarcerated cases, the public STD clinic (54.2%, 691/1,276) and hospitals (13.0%, 166/1,276) were most common treatment sites. **Conclusions:** Nearly one-third of syphilis cases in Maricopa County were diagnosed in corrections or involved recent incarceration. Treatment gaps and delays highlight opportunities to strengthen rapid syphilis diagnosis and treatment within correctional systems."

Title:

Geographic Disparities in Treatment and Outcomes Among Young Adults with Gastrointestinal Cancers in Arizona

Author:

Rachel Fisher

MPH Committee Chair or Master's Report Advisor:

Doug Campos-Outcalt, MD, MPA

Site:

Banner Gateway Medical Center

Preceptor:

Gary Walker M.D., M.P.H., M.S.

Abstract:

**Background:** Rates of gastrointestinal (GI) cancers are rising among young adults, posing new challenges for equitable care delivery. Non-metropolitan populations often face structural barriers that may affect treatment access and outcomes. Understanding how geography influences cancer care in this younger demographic is critical to advancing health equity and resource planning.

**Methods:** Adults aged 18-45 diagnosed with GI cancers were identified from the Arizona Cancer Registry (1995-2022). Counties were categorized as metropolitan or non-metropolitan using USDA rural-urban continuum codes. Multivariable logistic regressions assessed associations between place of residence and receipt of surgery, chemotherapy, or radiation, adjusting for demographics, diagnosis year, and tumor type. Cox proportional hazards models evaluated associations between place of residence and overall survival by tumor group. **Results:** Among 4,621 patients, non-metropolitan residence was not significantly associated with receipt of chemotherapy (OR = 1.12, p = 0.30) or radiation (OR = 0.91, p = 0.59) but was linked to lower odds of surgery (OR = 0.70, p = 0.005). Non-metropolitan patients had worse survival for colon cancer (HR = 1.40, p = 0.004) and pancreatic cancer (HR = 2.31, p = 0.001). No differences in survival were seen in other tumor types. **Conclusion:** Although surgery typically requires less travel than chemotherapy or radiation, non-metropolitan patients were less likely to receive it. This may be due to later-stage presentation when curative surgery is no longer feasible or limited access to surgical specialists. These disparities, along with poorer survival in colon and pancreatic cancers, highlight the need to strengthen referral pathways and regional surgical capacity to promote equitable cancer care across Arizona."

## **MPH Epidemiology**

### **ABSTRACTS**



Title:

Occupational and Industry Patterns of Opioid Overdose Mortality in Pima County, 2020–2024.

Author:

Aaron A Heras

MPH Committee Chair or Master's Report Advisor:

Kristen Pogreba-Brown, PhD, MPH

Site:

Pima County Health Department - Community Mental Health and Addiction Division (CMHA)

Preceptor:

Brian Eller, BoS

Abstract:

Background: Drug overdose deaths in the United States have increased by over 520% in the past two decades, exceeding 105,000 fatalities in 2023. Pima County mirrors this trend, with 510 accidental overdose deaths reported that year. Work environments involving heavy labor, job insecurity, and limited healthcare access can heighten vulnerability to substance use and overdose risk. To better identify populations most affected by opioid use disorder and fatal overdose, occupation and industry must be examined as contributing factors. Methods: Overdose mortality by occupation and industry (2020-2024) was analyzed using death certificate data from the Arizona Department of Health Services and the Pima County Office of the Medical Examiner, combined with workforce estimates from the Arizona Office of Economic Opportunity and the U.S. Census. Following the analysis, a policy review was conducted by examining federal, state, and city policies focused on addressing overdose education and Narcan distribution in the construction sector. The analytic findings, along with the policy review, were then used to develop a policy brief proposing a naloxone requirement for construction sites. This work was conducted with the Community Mental Health and Addiction Division at the Pima County Health Department. Results: Analyses revealed significantly higher unadjusted overdose mortality among Construction and Extraction occupations (424.8 per 100,000) and Mining and Construction industries (338.2 per 100,000), well above the occupation average (124.6 per 100,000) and the industry average (107.1 per 100,000). Conclusion: These findings highlight the need for targeted workplace overdose prevention policies, including on-site naloxone availability, overdose response training, and integration of harm-reduction practices across Pima County.

Title:

Diet, Physical Activity, and Sleep Patterns in U.S. Adults: A Latent Profile Analysis and Characterization of HINTS, Cycle 7

Author:

Genesis Mendoza

MPH Committee Chair or Master's Report Advisor:

Leslie Dennis, PhD, MS

Site:

University of Arizona, College of Nursing, FRESH Lab

Preceptor:

Meghan B. Skiba PhD, MS, MPH, RDN

Abstract:

Fruit and vegetable intake (FVI), moderate-to-vigorous physical activity (MVPA), and sleep duration are key health behaviors for chronic disease prevention and management. These behaviors may co-occur among adults, but how they vary across chronic disease and adults with multimorbidity is not well defined. Respondents from the Health Information National Trends Survey (HINTS) Cycle 7, with self-reported FVI (cups/day), MVPA (minutes/day), and sleep duration (hours/night) were included in an exploratory latent profile analysis to identify patterns of co-occurring health behaviors. Associations between sociodemographic and clinical characteristics and profile membership were assessed using multinomial logistic regression. Among 6,407 U.S. adults, the mean age was 48.6  $\pm$  17.9 years and 51.3% were male. Most identified as non-Hispanic (82.5%), lived in urban areas (97.7%), had health insurance (91.6%), and reported some college education or higher (73.5%). Four health behavior profiles were identified: No-to-Low Engagement, Low-to-Moderate Engagement, Moderate Engagement, and High Engagement, distinguished by differences in FVI and MVPA; sleep duration showed little variation across profiles. The largest prevalent profile was Low-to-Moderate Engagement, representing 39.5% of the sample. Profile membership varied by age, sex, racial identity, perceived general health, BMI, alcohol use, self-efficacy, and psychological distress, but showed little variation by chronic disease and multimorbidity. These findings from a nationally representative sample can help inform targeted interventions to promote positive health behaviors and support chronic disease prevention and management.

Title:

Evaluating Youth Health Promotion Through Creative Dance and Interactive Education: Insight from A Community-Based Internship

Author:

Kharen Bahe Morgan

MPH Committee Chair or Master's Report Advisor:

Zhao Chen, PhD, MPH

Site:

Healthy 2B Me & DREAM Project

Preceptor:

Elsa Loya, MPH, CHES

Abstract:

The Healthy 2B Me (H2BM) and DREAM (Dance, Resilience, Empowerment for Active Mental-Health & Wellbeing) projects are community-based public health initiatives designed to promote youth health, wellness, and behavioral awareness. H2BM enhances health literacy among underserved youth aged 7-10 through interactive education, while DREAM examines the feasibility and potential effects of creative dance on the physical and mental well-being of elementary students. H2BM is a four-week program meeting Monday - Thursday for three hours, featuring workshops on nutrition, hygiene, financial literacy, sun safety, and vaping/tobacco prevention. Participants completed pre- and post-surveys to assess changes in knowledge, behaviors, and physical activity. DREAM consists of twice-weekly, one-hour creative dance sessions over eight weeks, emphasizing improvisations and choreography culminating in a final performance. Participants completed pre- and post-assessment measuring reaction time, balance, memory, and well-being using standardized tools (SWAY Medical, WHO-5, GAD-7). Preliminary H2BM findings (N=58; 31 boys, 25 girls, 2 others) suggest improvements in health awareness, increased enjoyment of physical activity, and stronger peer engagement. In the DREAM Project, pre-intervention survey data were collected from sixteen participants (14 girls & 2 boys; ages 6-11) from a Tucson school, with post-survey data expected by December 2025. Together, these programs demonstrate that integrating health education and movement-based learning is well-received and may enhance health knowledge, physical activity, and mental well-being among youth, supporting evidence-based strategies for community health promotion and prevention.

## **MPH Family and Child Health**

### **ABSTRACTS**

Title:

Maternal Healthcare Accessibility and Female Reproductive Cancer Incidence Along the U.S.–Mexico Border

Author:

Aracely Lopez Esquer

MPH Committee Chair or Master's Report Advisor:

Felina Cordova-Marks, DrPH, MPH, MSc

Site:

HUM Lab

Preceptor:

Chris Lim, PhD

Abstract:

Communities along the U.S.-Mexico border face persistent healthcare inequities shaped by geographic isolation, socioeconomic barriers, and limited access to maternal and reproductive health services. The objective of this project was to assess disparities among indicators of maternal healthcare accessibility and examine their associations with female reproductive cancer incidence (cervical, ovarian, and uterine) between each border state's border counties and counties statewide as well as across all border counties and all counties combined. One indicator of accessibility was the geographic straight-line distance to the nearest HRSA health center from each county's population-weighted centroid. County-level data for 2018-2022 were obtained from the United States Cancer Statistics: Data Visualizations (CDC/USCS) and 2020 Health Resources and Services Administration (HRSA) health center data were drawn from the HRSA Electronic Reading Room. Forty-four of the 360 counties across Arizona, California, New Mexico, and Texas were classified as border counties under the La Paz Agreement. State-stratified models indicated that the association between distance to the nearest HRSA health center and cervical cancer incidence was strongest in Texas ( $\hat{\tau}^2 = 0.142$ ,  $p = 0.0038$ ). In aggregate analyses across all border counties and counties combined, greater distance was modestly associated with higher cervical cancer incidence ( $\hat{\tau}^2 = 0.076$  per mile,  $p = 0.027$ ). Future directions include assessing additional indicators like OB-GYN provider-to-population ratio and number of hospitals with obstetric care. Project findings provide an important foundation for understanding how healthcare accessibility influences women's health outcomes and can inform future public health interventions and policy efforts along the U.S.-Mexico border.

**MPH Global Health**

**ABSTRACTS**

Title:

Your Water, Your Future, Their Risk: Occupational Metal Exposures in CAP Welders

Author:

Carina Morris

MPH Committee Chair or Master's Report Advisor:

John E. Ehiri, PhD, MPH, MSc

Site:

Central Arizona Project

Preceptor:

Christina Collins, MPH, CIH, CSP

Abstract:

Introduction: As an Industrial Hygiene and Safety Intern at the Central Arizona Project (CAP) in Phoenix, Arizona, I assessed welders' metal exposures to respirable manganese and inhalable hexavalent chromium while gaining hands-on experience in occupational health and safety. CAP delivers water from Lake Havasu to Tucson, serving 80% of Arizona, including eleven tribal nations. The welders fabricate and shape equipment for the pumping plants, creating original and unique equipment for the canal. Objective: To contribute to a comprehensive understanding of the environmental and occupational hazards posed to welders, with a particular emphasis on metal fumes and their potential impact on overall health. The welders were sampled to evaluate occupational exposure to manganese and hexavalent chromium, as these metals are recognized for their potential health risks.

Methods: SKC AirChek TOUCH pumps and media were used to evaluate respirable manganese and inhalable hexavalent chromium. A total of seven samples were collected from three workers across multiple sampling days: three for respirable manganese exposure at headquarters, and four for inhalable hexavalent chromium exposure in a confined space at a pumping plant, where only one person welded at a time. Results: There were no samples that were above the 8-hour threshold limit value time weighted average (TLV-TWA). Conclusion: The controls, such as ventilation and work practices, at CAP appear to be effective in preventing welders from being overexposed to hazardous metals. However, due to the small sample size, additional sampling events are needed to obtain a more robust understanding of welders' metal exposures.

Title:

Vaccine Hesitancy Research in New Mexico: History, Barriers, and Opportunities.

Author:

Chanda Atkins

MPH Committee Chair or Master's Report Advisor:

Halimatou Alaofè, PhD, MSc

Site:

New Mexico Public Health Association

Preceptor:

Holly Mata, PhD

Abstract:

Introduction: Although vaccines are available, vaccine hesitancy and access hinder uptake. This internship was conducted with the New Mexico Public Health Association with the goal of increasing awareness on the importance of vaccines in reducing serious illnesses.

Methods: Analysis of global, national, and regional vaccine uptake rates was conducted. Research on the background of vaccine hesitancy and the role of misinformation in reducing vaccine uptake. Additional research was completed to identify populations with lower vaccine uptake and associated barriers within New Mexico. A review of communication outreach methods and best practices for generating behavior change. Results: From the research conducted a communication outreach plan for New Mexico was created for the target population. Multiple infographics were also created for distribution in public spaces and clinic settings to encourage vaccinations. An additional informational poster was created to educate healthcare staff on the recent changes to vaccine recommendations for COVID-19 and influenza in New Mexico. Conclusion: The result of this work highlights the need for increased access, policy changes, and education surrounding vaccine uptake. Further research into vaccine policy changes and their effects is needed to understand the impact of the recent changes to the vaccine schedule recommendations. "



Title:

IMPLEMENTING COMMUNITY HEALTHCARE WORKERS IN PRIMARY CARE AND PULMONOLOGY CLINICS  
TO FIGHT HEALTH DISPARITIES

Author:

Savannah Martini, MSW

MPH Committee Chair or Master's Report Advisor:

Halimatou Alaofè, PhD, MSc

Site:

AZ CEAL

Preceptor:

Kristina Rico, CRCC

Abstract:

Introduction: The AZ CEAL team is currently conducting a NIH funded study on the impact implementing Community Health Workers in primary care and pulmonology clinics in Tucson, AZ. Study participants are individuals who are at high risk of adverse health outcomes due to their Social Determinants of Health (SDOH). SDOH are external factors and conditions in the environments in which individuals live that impact their health outcomes. Methods: An abbreviated literature review was conducted to assess the importance of CHWs in health care, and research opportunities for CHWs to connect with study subjects. The study Project Manager identified education and training opportunities to help CHWs provide equitable resources and navigate social inequities in healthcare settings. Initially, a different second deliverable was chosen, however thanks to stakeholder feedback, the second deliverable transitioned to a brochure for study participants and clinic patients. Results: This internship resulted in the creation of two deliverables. The first deliverable is a training guide for the CHWs reviewing culturally appropriate medical documentation and resource identification for those struggling with SDOH. The second deliverable is a brochure providing information to study subjects on health insurance accessibility. Conclusion: Working with the AZ CEAL team for a portion of this study has been incredibly fulfilling and has furthered my passion for health equity. The training guide I created for CHWs will help provide valuable training for staff and resources to those whose health is impacted by their SDOH. The health insurance brochure was created with accessibility in mind, increasing health care accessibility for all study participants and clinic patients."

# **MPH Health Behavior Health Promotion**

## **ABSTRACTS**

Title:

Enhancing Statewide Health Equity Initiatives through Strategic Communications with the West Virginia Health Equity Action Team

Author:

Grace X. Atkinson

MPH Committee Chair or Master's Report Advisor:

Christine Girard, ND, MPH

Site:

West Virginia Prevention Research Center

Preceptor:

Alfgeir L. Kristjansson, PhD, MSc

Abstract:

Introduction: The West Virginia Health Equity Action Team (WV HEAT), hosted by the West Virginia Prevention Research Center (WVPRC), is a statewide coalition advancing health equity through policy, systems, and environmental change. Following federal restrictions that paused policy engagement, my Applied Practice Experience (APE) focused on sustaining coalition momentum by strengthening digital infrastructure and member engagement. Methods: I analyzed coalition needs and engagement strategies, then collaborated with partners to design an accessible, equity-focused website using Squarespace. Concurrently, I developed and pilot-tested a membership survey aligned with strategic planning and participatory evaluation principles. To support sustainability, I created technical guides, interactive meeting materials, and presented updated to the WV Community Partnership Board. I also contributed to agenda planning and leadership meetings to align deliverables with coalition priorities. Results: Two primary deliverables were produced: a fully developed WV HEAT website and a refined membership survey. The website contextualizes health equity, documents coalition history, and provides engagement tools. The survey captures member priorities and engagement preferences to inform strategic planning. Conclusion: This experience strengthened my skills in strategic communication, systems thinking, and adaptive project management. It showed the importance of digital infrastructure, participatory evaluation, and collaborative governance in sustaining coalition work and policy disruption. Sustaining health equity coalitions in shifting political landscapes requires continued investment in accessible digital tools, inclusive engagement strategies, and adaptive planning processes.

Title:

ASSESSING AND IMPROVING PNEUMOCOCCAL VACCINATION IN DIABETIC ALASKA NATIVE YOUTH: A CULTURALLY SENSITIVE APPROACH

Author:

Sherri Chapman

MPH Committee Chair or Master's Report Advisor:

Christine Girard, ND, MPH

Site:

Southcentral Foundation

Preceptor:

Jennifer Bracamontes, MD

Abstract:

**Introduction:** The Southcentral Foundation, an Alaska Native non-profit, provides comprehensive healthcare to approximately 70,000 Alaska Native individuals in the Anchorage area. Alaska Native youth with diabetes face a high risk of invasive pneumococcal disease. Despite clear CDC guidelines, pneumococcal vaccine uptake is low due to logistical and cultural barriers.

**Methods:** This initiative addressed critically low pneumococcal vaccination rates in diabetic Alaska Native youth. The project used a collaborative approach, beginning with a needs assessment conducted in consultation with a Pediatric Endocrinologist to establish baseline vaccination rates and a literature review to identify culturally sensitive, evidence-based strategies for vaccine adherence in Indigenous communities. A subsequent gap analysis pinpointed barriers like access and awareness. This groundwork led to the development of culturally sensitive interventions to integrate PCV20 or PPSV23 vaccination into routine diabetes care. **Results:** Three deliverables were created to increase PCV20 or PPSV23 vaccination uptake in diabetic Alaska Native youth: a Summary Table of Literature Review establishing current rates and synthesizing adherence strategies; a Gap Analysis Presentation for Tribal leadership addressing systemic and logistical barriers; and a Comprehensive Recommendations Report detailing specific, sustainable strategies, including culturally sensitive interventions and revised clinic workflows, for long-term program integration into routine diabetes care. **Conclusion:** Acknowledging the established need to improve PCV20 or PPSV23 vaccination adherence among high-risk Alaska Native youth, the project identified systemic and logistical barriers. The resulting culturally sensitive interventions offer a sustainable framework designed to increase vaccine utilization and reduce health disparities.

Title:

Insight to Impact: Bridging Technology and Family Engagement to Improve Developmental Screenings for Parents of Newborns with Easterseals Blake Foundation

Author:

Cristina Herrera Greenberg

MPH Committee Chair or Master's Report Advisor:

Christine Girard, ND, MPH

Site:

Easterseals Blake Foundation

Preceptor:

Cassandra Wakefield, RN, BSN, MSN, IBCLC

Abstract:

Introduction:

The Easterseals Blake Foundation's Maternal Early Childhood Sustained Home-visiting (MECSH) and Nurse-Family Partnership (NFP) programs offer support to expectant mothers and new mothers in Southern Arizona. This year, the goal of the MECSH and NFP programs' Continuous Quality Improvement (CQI) process is to increase the percentage of families completing Ages and Stages Questionnaires (ASQs). Methods: The first step was to focus on understanding the program, its goals, and building trust within the team. Using a Fishbone diagram, leadership and the team identified key areas for improvement. Information for the evaluation and implementation plan was collected through regular meetings with leadership and staff, as well as surveys, questionnaires, group discussions, and interviews. A literature review was also conducted to identify gaps, best practices, and evidence-based strategies to strengthen staff engagement and cross-program referrals. Results: Two deliverables were developed: an evaluation of recommendations to enhance engagement with rural nurses and an implementation plan that provides a roadmap to improve staff understanding and referrals to Behavioral Health (BH) programs within the organization. Conclusion: Nurses felt a disconnect during monthly Teams meetings, as Pima County staff attended in person while hybrid staff joined online. They struggled to hear due to inconsistent technology, and they found the resources presented to be sometimes irrelevant to their regions. Overall, the nurses in the rural areas felt supported and valued by their supervisors and coworkers in their flexible roles. The CQI process indicated that a better design of available services and accessibility of BH services information would benefit nurses in all regions. The implementation plan aims to address these needs."

Title:

Alzheimer's Disease in Arizona: A Public Health Perspective on Programs, Policies, and Future Recommendations

Author:

Maria Kirley

MPH Committee Chair or Master's Report Advisor:

Christine Girard, ND, MPH

Site:

Arizona Department of Health Services

Preceptor:

Teresa Aseret-Manygoats, MPA

Abstract:

Introduction: Alzheimer's disease and related dementias (ADRD) are an escalating public health concern in Arizona, where an aging population faces rising rates of cognitive decline and caregiver strain. This internship, conducted through the University of Arizona Mel & Enid Zuckerman College of Public Health in partnership with the Arizona Department of Health Services, assesses the state's Alzheimer's landscape through a public health lens. The project aims to identify effective programs, evaluate existing policy frameworks, and develop evidence-based recommendations to strengthen Arizona's statewide response to ADRD. Methods: A mixed-methods approach was used. A systematic literature review drew from PubMed, JSTOR, and National Institute on Aging databases, as well as government sources including the CDC, WHO, and Arizona Department of Health Services. The review examined prevention, early detection, caregiver support, and policy models across local, national, and global contexts. An environmental scan distributed via Qualtrics targeted individuals with ADRD, caregivers, and community organizations across Arizona to gather qualitative and quantitative insights on current programs, perceived needs, and service gaps. Data collection and analysis are ongoing. Results: The review identified best practices in prevention, detection, caregiver education, and policy alignment. Preliminary survey data reveal variation in access to resources, awareness of programs, and coordination among providers. Full results will be synthesized in a Findings & Recommendations Report and stakeholder presentation. Conclusion: Early insights underscore the need to expand dementia programs, strengthen caregiver support, and improve cross-sector collaboration. Final recommendations will guide policy, resource allocation, and statewide public health strategies on Alzheimer's Disease."

## **MPH Health Services Administration**

### **ABSTRACTS**

Title:

PAG over Pastries: Podcast to Increase Pediatric & Adolescent Gynecology Awareness and Education

Author:

Camille Imbo

MPH Committee Chair or Master's Report Advisor:

Amanda E. Sokan, PhD, MHA, LL.B

Site:

Phoenix Children Hospital

Preceptor:

Melissa Parks, DO, MPH, FACOG

Abstract:

Background: Pediatric & adolescent gynecology (PAG) is a small subspecialty of OBGYN. There are only a few hundred PAG providers in the country, which leaves pediatric and adolescent girls to seek care with someone who may not have received PAG training. The goal of this APE is to increase awareness of PAG as a specialty as well as provide an easily accessible resource for PAG education through a 20-30 minute podcast. Methods: The podcast was co-hosted by a PAG fellow and attending and featured monthly episodes beginning January 2025. Topics were selected from Essentials of PAG (NASPAG, 2024). Guest speakers were recruited via the NASPAG listserv in October 2024. To assess audience reach and demographics, an anonymous survey was hosted online and promoted on the podcast. Results: Since its launch, PAG Over Pastries has received over 2200 downloads. Among 25 survey respondents, most learned about the podcast through the NASPAG listserv (41%), friends/colleagues (34%), or social media (24%). A few (6.9%) found it through their app suggestions. Respondents primarily listened on Spotify (41%) and Apple (38%). Respondents included fellows (24%), residents (17%), attendings <5 years (31%), and attendings ≥5 years (21%) in PAG (38%), adolescent medicine (24%), or obstetrics and gynecology (24%). Two were not in the medical field or still students. 76% were members of NASPAG. Conclusion: PAG Over Pastries successfully engaged a diverse audience across training levels and specialties, with most listeners connected to the NASPAG community. This suggests podcasts may be an effective tool to disseminate PAG education and awareness. Future directions include expanding outreach beyond NASPAG membership and evaluating impact on knowledge and clinical confidence.



Title:

Qualitative Results of Latinos living in Maricopa County and their Perceptions on Blood Donations

Author:

Eileen Sanchez

MPH Committee Chair or Master's Report Advisor:

Sheila Soto, DrPH, MPH

Site:

University of Arizona

Preceptor:

Alicia Hernandez

Abstract:

Although Latinos/Hispanics make up the largest ethnic minority group, they continue to constitute a small number of the overall blood donations in the United States, demonstrating that there are significant barriers existing among Latinos/Hispanics. Their culture, education, and knowledge of blood donations due to their different subcultures can largely impact their current perceptions of blood donations. This study aims to fill this research gap by investigating the different barriers and facilitators that lead to blood donations by latino communities in Maricopa County, Arizona. Focus groups were conducted with community health workers (CHWs) and community members to explore the role that existing knowledge, myths, and past experiences play in their perceptions of blood donations. Our primary analysis revealed adverse experiences, lack of Information, cultural & religious beliefs, fear, and misinformation to be the common barriers to blood donations and understanding the importance of blood donation, increasing awareness, information needed, and outreach improvement to be common facilitators to blood donations. Specific barriers to blood donations among community members included lack of information, false beliefs or ideas heard by community members, and events in the community members' past that influence their present-day decisions. Specific barriers to blood donations among community health workers included lack of information/training for community health workers, misinformation, and lack of encouragement from providers to donate. An important finding were the common facilitators that could lead to increase in blood donations among latinos: among community members it included access to nearby donation centers while among community health workers it included trainings for CHWs and access to trusted sources.

**MPH One Health**

**ABSTRACTS**

Title:

Enhancing Rabies Risk Assessment and Post-Exposure Prophylaxis Utilization in Pima County

Author:

Precious Innocent Mastala

MPH Committee Chair or Master's Report Advisor:

Leila Barraza, JD, MPH

Site:

Pima County Health Department

Preceptor:

Ellen Santos, MS, PhD

Abstract:

Introduction: Rabies is nearly 100% fatal yet preventable through post-exposure prophylaxis (PEP) comprising wound care, vaccine, and Human Rabies Immunoglobulin (HRIG). However, precautionary PEP use often exceeds true exposure risk, driving unnecessary costs and straining resources. This project aimed to quantify PEP utilization and direct medical costs by exposure risk in Pima County, and develop a wildlife submission algorithm to standardize rabies testing and risk communication. Methods: A retrospective analysis of Pima County Health Department rabies exposure data (Jan 2024-Jul 2025) estimated PEP initiation and direct medical costs (vaccine, HRIG, administration) using county, state, and national price references with sensitivity analyses. A decision-support algorithm for wildlife submission following human or animal exposures was also created, based on Arizona Department of Health Services guidance and local interdepartmental input. Results: Of 805 exposure assessments, 70% were low risk. While 20% (158) were recommended for PEP, 22% (177) initiated PEP. In low-risk cases, only 2% were recommended but 6.4% received PEP. Total direct medical cost was \$1.74 million (95% CI: \$1.40-\$2.08 M), averaging \$5,399 per patient, with HRIG comprising 62%. PEP limited to confirmed rabid exposures could save \$1.51 million (95% CI: \$1.22-\$1.81 M); since some medium-risk exposures need PEP when results are unavailable, excluding only low-risk cases would still save \$360,968 (95% CI: \$290,635-\$431,300). In addition, three facilities showed higher-than-expected low-risk initiation rates. The algorithm established clear “submit,” “consult,” and “do not submit” endpoints. Conclusion: Aligning PEP use with exposure risk and implementing the wildlife submission algorithm can enhance decision consistency, reduce unnecessary spending, and strengthen rabies surveillance in Pima County.

## The MPH Applied Practice Experience

From the inception of the Master of Public Health Program in 1993, the Applied Practice Experience (previously known as the Internship) has been one of the most impactful and practical part of the program's curriculum.

Since its establishment, the MPH APE/Internship Conference has grown in stature and significance to the Mel and Enid Zuckerman College of Public Health (MEZCOPH). The College uses this event as a public health networking tool by inviting public health practitioners, partners, and alumni throughout the state to view student presentations.

Through contributions they have made and the benefits they have gained, the Conference reflects the indelible handprint of MEZCOPH students on public health projects and agencies throughout the world.



THE UNIVERSITY OF ARIZONA

Mel & Enid Zuckerman  
College of Public Health